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Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2009; month=8; day=7; hr=8; min=1; sec=42; ms=458; ]

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Reviewer Comments:

<210> 15

<211> 3933

<212> DNA

<213> Pseudomonas sp. HJ-2 (phb locus)

<400> 15

gagctcaatg cgcgccagga ctggtgtgcg aggacaaccc ggcgtcaccc ggggacattg  
60

ttcacatccg caaagcgcca gagacttgcc cgctgttcca aggtcttaat taacgaggaa  
120

tgggttaatgg gtactgcgag caatgcggca cgtatagctc tggtcaccgg tggatatgggc  
180

ggtatcggta cggcgatcag ccagcgctg catcgggatg gcttcaccgt ggtggtgggc  
240

tgtaatccct actccagccg caaggcttcc tggattgcca cgcaactcga ggcgggcttt  
300

cacttccact gcatcgactg cgacatcacc gactgggata gcacccgccca ggccttcgac  
360

atggtgcacg agactgtcgg cccgatcgat gtattggtca acaatgccgg catcaccgcg  
420

gacggcactt tccgcaagat gtccccggaa aactggaagg cggatgatcga taccaatctc  
480

accggcctgt tcaacacaac caagcaggtc atcgagggca tgctggccaa gggctgggga  
540

cgcgtcatca acatctcctc aatcaatggc cagcgaggcc agttcgggca gaccaactac  
600

tccgcggnca aggctggcat tcatggcttc agcatggcct tggcccgcga ggtgagtggc  
660

aagggcgtga ccgtaatac ggtttcccct ggctacatca agaccgacat gaccgcggcg  
720

attcgcccgg acatcctcga agacatgatt actggcattc ccgtgggccg tctcggccag  
780

cccgaggaga tcgcctcgat cgtggcctgg ctggcctccg atcagtctgc ctatgccacc  
840

ggcgccgact tctcggtgaa tggcggcatg aacatgcagt gatgcgccat tcgcgcctc  
900

gctcagccat gacatgaggt gttccagatg atcgaagtcg ttatcgtcgc cgccactcgc  
960

accgccatcg gcgctttcca ggggagcctg gccggcactc ccgccgttga actggggcgc  
1020

acggtgatcc gccgcctgct cgaacagacc gctctggata gcagtcaggt ggatgaagtg  
1080

atactcggcc acgtactcac cgccggtgct ggcagaatac cgctcgccag gcancnggtc  
1140

Regarding the above <213> response; per 1.823 of the Sequence Rules, the only valid responses are the Genus species of the organism, "Artificial Sequence", or "Unknown". "Artificial Sequence" and "Unknown" require explanation in the <220>-<223> section; please give the source of the genetic material. Please just list the Genus species as the <213> response; put explanatory matter in the <220>-<223> section; please correct all similar sequences.

The n's at locations 608, 1134, and 1136 are not explained above.

<210> 16

<211> 251

<212> PRT

<213> Pseudomonas sp. HJ-2 (NADPH-dependent acetoacetyl-CoA reductase  
(phbB))

<400> 16

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Thr | Ala | Ser | Asn | Ala | Ala | Arg | Ile | Ala | Leu | Val | Thr | Gly | Gly |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Gly | Ile | Gly | Thr | Ala | Ile | Ser | Gln | Arg | Leu | His | Arg | Asp | Gly |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Thr | Val | Val | Val | Gly | Cys | Asn | Pro | Tyr | Ser | Ser | Arg | Lys | Ala | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     |     | 45  |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ile | Ala | Thr | Gln | Leu | Glu | Ala | Gly | Phe | His | Phe | His | Cys | Ile | Asp |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asp | Ile | Thr | Asp | Trp | Asp | Ser | Thr | Arg | Gln | Ala | Phe | Asp | Met | Val |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Glu | Thr | Val | Gly | Pro | Ile | Asp | Val | Leu | Val | Asn | Asn | Ala | Gly | Ile |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Asp | Gly | Thr | Phe | Arg | Lys | Met | Ser | Pro | Glu | Asn | Trp | Lys | Ala |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     |     | 110 |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ile | Asp | Thr | Asn | Leu | Thr | Gly | Leu | Phe | Asn | Thr | Thr | Lys | Gln | Val |
|     |     |     | 115 |     |     |     | 120 |     |     |     |     |     | 125 |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Gly | Met | Leu | Ala | Lys | Gly | Trp | Gly | Arg | Val | Ile | Asn | Ile | Ser |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Asn | Gly | Gln | Arg | Gly | Gln | Phe | Gly | Gln | Thr | Asn | Tyr | Ser | Ala |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Lys | Ala | Gly | Ile | His | Gly | Phe | Ser | Met | Ala | Leu | Ala | Arg | Glu | Val |
|     |     |     | 165 |     |     |     |     |     | 170 |     |     |     |     | 175 |     |

Please correct the above <213> response to just indicate the Genus species of the organism; place explanatory matter in the <220>-<223> section. Also, the above <213> response exceeds the Sequence Rules' required 72-character line limit. The "Xaa" at location 161 is not explained above.

<210> 17  
<211> 392  
<212> PRT  
<213> Pseudomonas sp. HJ-2 (beta-ketothiolase (phbA))

<400> 17  
Met Ile Glu Val Val Ile Val Ala Ala Thr Arg Thr Ala Ile Gly Ala  
1 5 10 15

Phe Gln Gly Ser Leu Ala Gly Thr Pro Ala Val Glu Leu Gly Ala Thr  
20 25 30

Val Ile Arg Arg Leu Leu Glu Gln Thr Ala Leu Asp Ser Ser Gln Val  
35 40 45

Asp Glu Val Ile Leu Gly His Val Leu Thr Ala Gly Ala Gly Arg Ile  
50 55 60

Pro Leu Ala Arg Xaa Xaa Val Ile Ala Gly Leu Pro His Ala Val Pro  
65 70 75 80

Please correct the above <213> response. Also, the "Xaa's" at locations 69-70 are not explained above.

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Application No: 10583840 Version No: 2.0

Input Set:

Output Set:

Started: 2009-07-22 14:17:12.979  
 Finished: 2009-07-22 14:17:15.807  
 Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 828 ms  
 Total Warnings: 18  
 Total Errors: 6  
 No. of SeqIDs Defined: 18  
 Actual SeqID Count: 18

| Error code | Error Description                                     |
|------------|---|
| W 213      | Artificial or Unknown found in <213> in SEQ ID (1)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (2)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (3)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (4)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (5)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (6)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (7)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (8)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (9)    |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (10)   |
| W 213      | Artificial or Unknown found in <213> in SEQ ID (11)   |
| W 402      | Undefined organism found in <213> in SEQ ID (12)      |
| W 402      | Undefined organism found in <213> in SEQ ID (13)      |
| W 402      | Undefined organism found in <213> in SEQ ID (14)      |
| W 402      | Undefined organism found in <213> in SEQ ID (15)      |
| E 342      | 'n' position not defined found at POS: 608 SEQID(15)  |
| E 342      | 'n' position not defined found at POS: 1134 SEQID(15) |
| E 342      | 'n' position not defined found at POS: 1136 SEQID(15) |
| W 402      | Undefined organism found in <213> in SEQ ID (16)      |
| E 341      | 'Xaa' position not defined SEQID (16) POS (161)       |

Input Set:

Output Set:

Started: 2009-07-22 14:17:12.979  
Finished: 2009-07-22 14:17:15.807  
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 828 ms  
Total Warnings: 18  
Total Errors: 6  
No. of SeqIDs Defined: 18  
Actual SeqID Count: 18

| Error code | Error Description                                |
|------------|--|
| W 402      | Undefined organism found in <213> in SEQ ID (17) |
| E 341      | 'Xaa' position not defined SEQID (17) POS (69)   |
| E 341      | 'Xaa' position not defined SEQID (17) POS (70)   |
| W 402      | Undefined organism found in <213> in SEQ ID (18) |

|       |   |    |
|-------|---|----|
| <110> | LG CHEM, LTD.   |    |
| <120> | Poly(3-hydroxyalkanoate) Block Copolymer Having Shape Memory Effect |    |
| <130> | LC05PCT042  |    |
| <140> | 10583840  |    |
| <141> | 2009-07-22  |    |
| <150> | KR 10-2005-0059907  |    |
| <151> | 2005-07-04  |    |
| <160> | 18  |    |
| <170> | KopatentIn 1.71   |    |
| <210> | 1   |    |
| <211> | 18  |    |
| <212> | DNA   |    |
| <213> | Artificial Sequence   |    |
| <220> |   |    |
| <223> | Choi3 (PCR Primer)  |    |
| <400> | 1   |    |
|       | ccgccstgsa tcaagtac   | 18 |
| <210> | 2   |    |
| <211> | 20  |    |
| <212> | DNA   |    |
| <213> | Artificial Sequence   |    |
| <220> |   |    |
| <223> | Choi4 (PCR Primer)  |    |
| <400> | 2   |    |
|       | gytsgtgsyg tcyycgttcc   | 20 |
| <210> | 3   |    |
| <211> | 24  |    |
| <212> | DNA   |    |
| <213> | Artificial Sequence   |    |
| <220> |   |    |
| <223> | HJ-PHB-N (PCR Primer)   |    |
| <400> | 3   |    |
|       | caccatgctg agttgcgctc tagc  | 24 |
| <210> | 4   |    |

<211> 27  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> HJ-PHB-C (PCR Primer)

<400> 4  
tcadm<sup>s</sup>ytty acrtarcgkc ctggygc

27

<210> 5  
<211> 20  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> SCL-1 (PCR Primer)

<400> 5  
gatcgatacc aatctcaccg

20

<210> 6  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> SCL-2 (PCR Primer)

<400> 6  
caaagccagt gggttcgacgt a

21

<210> 7  
<211> 19  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> SCL-3 (PCR Primer)

<400> 7  
ctgctgaaac tggttgagc

19

<210> 8  
<211> 47  
<212> DNA  
<213> Artificial Sequence  
  
<220>



<223> SD-BA-N (PCR Primer)

<400> 8  
gggggtacca ataaggagat atacatatgg gtactgcgag caatgcg 47

<210> 9  
<211> 28  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> BA-C (PCR Primer)

<400> 9  
cccactagtt cagcgctcga tggccagc 28

<210> 10  
<211> 28  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> SD-phbC-N (PCR Primer)

<400> 10  
gggcatatga ccagaagaa caacagcg 28

<210> 11  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> phbC-C (PCR Primer)

<400> 11  
cccactagtt cadmscttga crtaacgtcc tggcgcygc 39

<210> 12  
<211> 756  
<212> DNA  
<213> Pseudomonas sp. HJ-2

<220>  
<221> variation  
<222> (482)  
<223> n=A, C, G or T

<400> 12

|   |     |
|---|-----|
| atgggtactg cgagcaatgc ggcacgtata gctctggtca ccggtggtat gggcggtatc | 60  |
| ggtacggcga tcagccagcg cctgcacggg gatggcttca ccgtggtggt gggctgtaat | 120 |
| cctactcca gccgcaaggc ttcttgatt gccacgcaac tcgaggcggg ctttcacttc   | 180 |
| cactgcacg actgcgacat caccgactgg gatagcacc gccaggcett cgacatggtg   | 240 |
| cacgagactg tcggcccgat cgatgtattg gtcaacaatg ccggcatcac ccgcgacggc | 300 |
| actttccgca agatgtcccc ggaaaactgg aaggcggta tcgataccaa tctcaccggc  | 360 |
| ctgttcaaca caaccaagca ggtcatcgag ggcatgctgg ccaagggtg gggacgcgtc  | 420 |
| atcaacatct cctcaatcaa tggccagcga ggccagttcg ggcagaccaa ctactccgg  | 480 |
| gncaaggctg gcattcatgg cttcagcatg gccttggccc gcgaggtagg tggcaagggc | 540 |
| gtgaccgtca atacggtttc cctggctac atcaagaccg acatgaccgc ggcgattcgc  | 600 |
| ccggacatcc tcgaagacat gattactggc attcccgtag gccgtctcgg ccagcccag  | 660 |
| gagatcgctt cgatcgtggc ctggctggcc tccgatcagt ctgcctatgc caccggcgcc | 720 |
| gactttctcg tgaatggcgg catgaacatg cagtga                           | 756 |

<210> 13  
 <211> 1179  
 <212> DNA  
 <213> *Pseudomonas* sp. HJ-2

<220>  
 <221> variation  
 <222> (207)  
 <223> n=A, C, G or T

<220>  
 <221> variation  
 <222> (209)  
 <223> n=A, C, G or T

|  |     |
|--|-----|
| <400> 13   |     |
| atgatcgaag tcgttatcgt cgcgcgcaact cgcaccgcca tcggcgcttt ccaggggagc | 60  |
| ctggccggca ctcccgcgt tgaactgggc gccacggtga tccgcgcct gctcgaacag    | 120 |
| accgetctgg atagcagtca ggtggatgaa gtgatactcg gccacgtact caccgccggt  | 180 |
| gctggcagaa taccgctcgc caggcaacng gtcacgcgcg gcctgccaca cgcgtaaccg  | 240 |
| gcgatgacct tgaacaaggt ctgtggctcc ggctgaaaag cctgcacct gggcgcccag   | 300 |
| gccatccgct gtggcgatgc cgaggtagtg attgccggtg gcatggagaa catgagcctg  | 360 |
| tcgtcctatg tcttgcceaa ggcccgcacc ggctgcgca tgggccacgc gcagctggtc   | 420 |

|  |      |
|--|------|
| gacagcatga tcgtcgacgg cctgtgggac gccttcaacg actaccacat ggggatcaact | 480  |
| gccgagaacc tggtagacaa gtacggcatc agccgcgaag cccaggacga attcgccgcc  | 540  |
| gcctcgacgc agaaagecgt ggcgcgcacg gagaccggtc gcttccgcga cgagatcgtc  | 600  |
| ccggtgagca ttccgcagcg caagggcgag gcgctgagct tcgacaccga cgaacagcca  | 660  |
| cgcgcgcgca ccaccgccga gtcgctgggc aagctgaaac cggccttcaa gaacgacggc  | 720  |
| agcgttactg ccggcaacgc ttccagcttc aacgacggcg ccgccgcggc actgctgatg  | 780  |
| agtggggcaa aggcgcgacg gcttggctcg ccagtgcctg cgaagatcgc cgcctacgcc  | 840  |
| aatgcgcggc tcgaccgggc gatcatgggt atcggaaccg tgtcggccac ccgcagttgc  | 900  |
| ctggagaagg cgggctggag tctggcagag ctggatctga tcgaggccaa tgaagccttc  | 960  |
| gcggcccagg ccctggccgt gggtcaggag ctgggctggg atgctggcag ggttaacgtc  | 1020 |
| aacggcggcg ccacgcacct cggccacccc attggcgcc cggctgcgc cgtactggtc    | 1080 |
| agcctgctgc atgaaatgct caggcgcgac gcgaaaaag gcctcgtac cctgtgtatc    | 1140 |
| ggtggcggcc agggcggtggc gctggccatc gagcgctga                        | 1179 |

<210> 14  
 <211> 1701  
 <212> DNA  
 <213> *Pseudomonas* sp. HJ-2 (SCL-PHA synthase (phaC))

|   |     |
|---|-----|
| <400> 14  |     |
| atggacaacg gacacacctt tgcctactac tggtcgggtc aggcgcacct catcgccagc | 60  |
| ttcgtcctgc agcaactgcg cttatacgtg gcgcaaaata cttggttcag cgggcacgac | 120 |
| caaagccagt ggttcgacgt acctgtcgag gcgttggagc aactgcaggc ggactaccaa | 180 |
| caacagtggg ccgaacttgg ccagcaattg ctgagctgcc agccgttcgc attcagcgat | 240 |
| cgtcgcttcg ccagtggcaa ctggagcgaa ccgctgttcg gttccctggc tgccttctac | 300 |
| ctgctgaatt ccggtttcct gctgaaactg ttggagcttc tcccacatga tgagcagaag | 360 |
| ccccgccagc gcttgcgtta cttgatcgag caagcgattg ccgcaagcgc cccaagtaac | 420 |
| tttctgctga gcaaccctga tgcctgcaa cgctagtgg aaaccaggg cgcagccta     | 480 |
| ctaagtggcc tgttgcactc tgcagtgac ctgcaggcag gcaagttgcg ccaatgtgac  | 540 |
| ttgggcgatt tcgaagtcgg cgtgaatctg gccaccaccc ctgggtgccg ggtactggaa | 600 |
| acccctctgt tccagctgat ccagtattcg ccgctcagcg aaacgcaata ccagcggccg | 660 |
| atattcatgg tcccgccctg gatcaacaag tactacatcc ttgacctcg gcccgaaaac  | 720 |

|  |      |
|--|------|
| tctetaatcc gtcactact ggagcgaggc catcaagttt ttctgatgtc ctggcgcaac   | 780  |
| ttcactcagg aacaggccga catcacctgg gacgagatca tccaggacgg agtgatcagc  | 840  |
| gccctgcgca ctaccggggc catcagtggg gacgcccacc tgaactgttt gggtttctgc  | 900  |
| atcggcggca ccatgtgag ttgcgtctca gcggtgctgg cagcgcgtgg cgaccaggac   | 960  |
| attgccagcc tgagtctatt cgcactttt cttgactacc ttgataccgg gccgatcagc   | 1020 |
| gtcttcgtcg atgagcaact ggtggcctac cgtgagcgca ccatcgggtgg ccatggtggc | 1080 |
| aaatgtggcc tgttccggcg tgaggacatg ggcaatacct tctccctgct ggggccaac   | 1140 |
| gagctgtggt ggaactacaa cgtagacaaa tatctcaagg ggcagaagcc gctggtctg   | 1200 |
| ggtctactgt tctggaacaa cgacagcacc aatctgccgg ggcacctgta ttgctggtat  | 1260 |
| ctgcgccaca cctacctgca gaacgacctc aaatcggggg agttggatct gtgcggcgtc  | 1320 |
| aagttggatc tgcgggccat agacgcacca gcctacatct tgggaacca tgacgaccac   | 1380 |
| atcgtgccct ggcgaaagcg ctatgccagc acggaattgc tgggaggtcc aaagcgcttt  | 1440 |
| gtcctcggcg cctccggcca catcgccggg gtgatcaacc cgccagatag gaacaagcg   | 1500 |
| cattactggg tcaatgaaca catagcgccg gtactgacg actggctgca gggagctcag   | 1560 |
| cagcattccg gcagttggtg gggtgactgg ttgcctggt tgaccggcta tgccggccca   | 1620 |
| cgcaagcctg ccatcactat gctgggcagt gccgagtacc ccccgcttga acatgcgcca  | 1680 |
| ggacgttatg tgaagctatg a  | 1701 |

<210> 15  
 <211> 3933  
 <212> DNA  
 <213> *Pseudomonas* sp. HJ-2 (phb locus)

|   |     |
|---|-----|
| <400> 15  |     |
| gagctcaatg cgcgccagga ctggtgtgag aggacaaccc ggcgtcacc ggggacattg  | 60  |
| ttcacatccg caaagcgcca gagacttgcc cgtgttcca aggtcttaat taacgaggaa  | 120 |
| tggttaatgg gtactgcgag caatgcggca cgtatagctc tggtcaccgg tggatgggc  | 180 |
| ggtatcggta cggcgatcag ccagcgctg catcgggatg gcttcaccgt ggtggtgggc  | 240 |
| tgtaatccct actccagcgg caaggettec tggattgcca cgcaactcga ggcgggcttt | 300 |
| cacttccact gcatcgactg cgacatcacc gactgggata gcaccgcca ggccttcgac  | 360 |
| atggtgcacg agactgtcgg cccgategat gtattggtca acaatgccgg catcacccgc | 420 |
| gacggcactt tccgcaagat gtcccggaa aactggaagg cggtgatcga taccaatctc  | 480 |

|  |      |
|--|------|
| accggcctgt tcaacacaac caagcaggtc atcgagggca tgctggccaa gggetgggga  | 540  |
| cgcgatcatca acatctcttc aatcaatggc cagcgaggcc agttcgggca gaccaactac | 600  |
| tccgeggnea aggetggcat tcatggcttc agcatggcct tggcccgcga ggtgagtggc  | 660  |
| aagggcgtga ccgtcaatac ggtttccctt ggtacatca agaccgacat gaccgcggcg   | 720  |
| attcgcccg acatctctga agacatgatt actggcattc ccgtgggcgg tctcgccag    | 780  |
| cccaggaga tcgcctcgat cgtggcctgg ctggcctcgg atcagtctgc ctatgccacc   | 840  |
| ggcgccgact tctcggtgaa tggcggcgat aacatgcagt gatgcgccat tcgcgcctc   | 900  |
| gtcagccat gacatgaggt gttccagatg atcgaagtcg ttatcgtcgc cgccactcgc   | 960  |
| accgccatcg gcgctttcca ggggagcctg gccggcactc ccgcggtga actgggcgcc   | 1020 |
| acgggtgatcc gccgcctgct cgaacagacc gctctggata gcagttaggt ggatgaagtg | 1080 |
| atactcgcc acgtactcac cgccggtgct ggcagaatac ccctcgccag gcancngtc    | 1140 |
| atcgccggcc tgccacacgc cgtaccggcg atgacctga acaaggtctg tggtccggc    | 1200 |
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| cggaagccc aggacgaatt cgccgcgcc tcgcagcaga aagccgtggc cgccatcgag    | 1500 |
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| gatctgatcg aggccaatga agccttcgcg gcccaggccc tggcgtggg tcaggagctg   | 1920 |
| ggtgggatg ctggcagggt taacgtcaac ggcggcgcca tcgcctcgg ccacccatt     | 1980 |
| ggcgctcgg gctgcgcgt actggtcagc ctgctgcatg aaatgctcag gcgcgacgcg    | 2040 |
| aaaaaaggcc tcgtaccct gtgtatcggt ggcggccagg gcgtggcgct ggccatcgag   | 2100 |
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| ctgcggccca acgagctgtg gtggaactac aacgtagaca aatatctcaa ggggcagaag  | 3420 |
| ccgctggctc tgggtctact gttctggaac aacgacagca ccaatctgcc ggggccctg   | 3480 |
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| catgacgacc acatcgtgcc ctggcggaag gcctatgcca gcacggaatt gctgggaggt  | 3660 |
| ccaaagcgtt ttgtcctcgg cgcctccggc cacatcgccg gggtgatcaa cccgccagat  | 3720 |
| aggaacaagc gccattactg ggtcaatgaa cacatagcgc cggtagctga cgactggctg  | 3780 |
| cagggagctc agcagcattc cggcagttgg tggggtgact ggttcgctg gttgaccggc   | 3840 |
| tatgcgggcc cagcaagcc tgccatcact atgctgggca gtgccgagta cccccgctt    | 3900 |

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3933

<210> 16

<211> 251

<212> PRT

<213> Pseudomonas sp. HJ-2 (NADPH-dependent acetoacetyl-CoA reductase (phbB))

<400> 16

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35 40 45

Trp Ile Ala Thr Gln Leu Glu Ala Gly Phe His Phe His Cys Ile Asp  
50 55 60

Cys Asp Ile Thr Asp Trp Asp Ser Thr Arg Gln Ala Phe Asp Met Val  
65 70 75 80

His Glu Thr Val Gly Pro Ile Asp Val Leu Val Asn Asn Ala Gly Ile  
85 90 95

Thr Arg Asp Gly Thr Phe Arg Lys Met Ser Pro Glu Asn Trp Lys Ala  
100 105 110

Val Ile Asp Thr Asn Leu Thr Gly Leu Phe Asn Thr Thr Lys Gln Val  
115 120 125

Ile Glu Gly Met Leu Ala Lys Gly Trp Gly Arg Val Ile Asn Ile Ser  
130 135 140

Ser Ile Asn Gly Gln Arg Gly Gln Phe Gly Gln Thr Asn Tyr Ser Ala  
145 150 155 160

Xaa Lys Ala Gly Ile His Gly Phe Ser Met Ala Leu Ala Arg Glu Val  
165 170 175

Ser Gly Lys Gly Val Thr Val Asn Thr Val Ser Pro Gly Tyr Ile Lys  
180 185 190

Thr Asp Met Thr Ala Ala Ile Arg Pro Asp Ile Leu Glu Asp Met Ile  
195 200 205

Thr Gly Ile Pro Val Gly Arg Leu Gly Gln Pro Glu Glu Ile Ala Ser  
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Ile Val Ala Trp Leu Ala Ser Asp Gln Ser Ala Tyr Ala Thr Gly Ala  
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Asp Phe Ser Val Asn Gly Gly Met Asn Met Gln  
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<210> 17  
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 <212> PRT  
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 Val Ile Arg Arg Leu Leu Glu Gln Thr Ala Leu Asp Ser Ser Gln Val  
 35 40 45  
 Asp Glu Val Ile Leu Gly His Val Leu Thr Ala Gly Ala Gly Arg Ile  
 50 55 60  
 Pro Leu Ala Arg Xaa Xaa Val Ile Ala Gly Leu Pro His Ala Val Pro  
 65 70 75 80  
 Ala Met Thr Leu Asn Lys Val Cys Gly Ser Gly Leu Lys Ala Leu His  
 85 90 95  
 Leu Gly Ala Gln Ala Ile Arg Cys Gly Asp Ala Glu Val Val Ile Ala  
 100 105 110  
 Gly Gly Met Glu Asn Met Ser Leu Ser Ser Tyr Val Leu Pro Lys Ala  
 115 120 125  
 Arg Thr Gly Leu Arg Met Gly His Ala Gln Leu Val Asp Ser Met Ile  
 130 135 140  
 Val Asp Gly Leu Trp Asp Ala Phe Asn Asp Tyr His Met Gly Ile Thr  
 145 150 155 160  
 Ala Glu Asn Leu Val Asp Lys Tyr Gly Ile Ser Arg Glu Ala Gln Asp  
 165 170 175  
 Glu Phe Ala Ala Ala Ser Gln Gln Lys Ala Val Ala Ala Ile Glu Thr  
 180 185 190  
 Gly Arg Phe Arg Asp Glu Ile Val Pro Val Ser Ile Pro Gln Arg Lys  
 195 200 205  
 Gly Glu Ala Leu Ser Phe Asp Thr Asp Glu Gln Pro Arg Ala Gly Thr  
 210 215 220  
 Thr Ala Glu Ser Leu Gly Lys Leu Lys Pro Ala Phe Lys Asn Asp Gly  
 225 230 235 240  
 Ser Val Thr Ala Gly Asn Ala Ser Ser Leu Asn Asp Gly Ala Ala Ala  
 245 250 255  
 Val Leu Leu Met Ser Ala Ala Lys Ala Ala Ala Leu Gly Leu Pro Val